

Reply Report of Dr. Kevin Neels and Dr. Nicholas Powers  
To Accompany UPS Reply Comments  
In Docket No. RM2016-12

November 14, 2016

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## I. Introduction

We previously submitted testimony in this docket on behalf of UPS (“Original Report”).<sup>1</sup> Our qualifications and experience are summarized therein.

In this report we comment upon a number of issues raised by the Public Representative in his initial Comments in this docket (“PR Comments”).<sup>2</sup> We believe that a number of the issues raised and recommendations made in those Comments are worthy of the Commission’s consideration. At the same time, we respectfully disagree with other points raised by the Public Representative and believe that these other points merit some comments and clarification. This report addresses four major themes that emerged from our review and evaluation of the Public Representative’s Comments.

## II. The Proper Focus of the Commission is on Long-Run Variabilities

We agree fully with the Public Representative that in measuring attributable costs it is appropriate for the Commission to measure and rely upon the long-run variability of costs with respect to volume.<sup>3</sup> We agree also with the assessment of the Public Representative that the model presented by the Postal Service captures at most the short run variability of capacity with respect to volume and that it should not be used for costing purposes.<sup>4</sup>

It is well established in economics and business that given more time, one can do more to adjust more fully to changes in the economic environment. For example, faced with a sudden increase in the price of gasoline, the only way for most consumers to avoid an increase in their gasoline expenditures would be to curtail the number and/or duration of the trips that they take. However, as time passes and more and more vehicles reach the ends of their useful lives, consumers can purchase more fuel efficient replacements. For this reason, it has been well established that the short run response to an increase in the price of gasoline is much smaller than the long run response.

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<sup>1</sup> Report of Dr. Kevin Neels and Dr. Nicholas Powers, To Accompany UPS Comments in Docket No. RM2016-12, October 17, 2016.

<sup>2</sup> Public Representative Comments, Docket No. RM2016-12, October 17, 2016. (“PR Comments”).

<sup>3</sup> PR Comments, p. 4.

<sup>4</sup> PR Comments, pp. 4-5.

1 In addition to an increased ability to capture lags in the adjustment process, a long-term focus allows  
2 variability estimates to reflect a wider range of volume changes. There are many situations in which  
3 the optimal way to organize a production process depends upon the volume of output that has to be  
4 produced. If you're moving some small furniture, you might use your car, but when moving an  
5 entire household you will likely need to rent a truck and possibly hire movers. This type of volume-  
6 driven change in the structure and organization of the production process is properly accounted for as  
7 part of the effect that changes in volume have on costs. Changes in the organization of the  
8 production process can take time to implement. Hence, such changes will become visible and  
9 measurable only if one monitors the effects of volume changes over a sufficiently long period of time.  
10 As we noted in our Original Report, over the period covered by the Postal Service's capacity analysis  
11 an extensive restructuring of its network took place – a restructuring that was motivated in large part  
12 by the reduction in volume that had taken place, and that was expected to result in, among other  
13 things, a reduction in transportation costs.<sup>5</sup>

14 It is especially important to adopt a long run perspective on the effects of volume changes during  
15 periods when volume is generally declining. As we noted in our Original Report, the way in which  
16 the Postal Service responds to increases and decreases in volume are not necessarily symmetric.<sup>6</sup> If  
17 the system is operating at or near capacity, growth in volume can create a situation in which the  
18 Postal Service must either defer delivery of the excess mail, running the risk of failing to meet service  
19 standards, or else on short notice arrange for an increase in the amount of capacity provided.<sup>7</sup> In  
20 contrast, a decline in mail volumes creates no similar operational pressures. The Postal Service may  
21 decide to downsize the network in such a situation in order to reduce costs, but its ability to do so  
22 may be constrained by contractual commitments. And even if it is not constrained, it can exercise  
23 considerable discretion over when to carry out such a downsizing. It can decide simply to continue  
24 to operate an inappropriately sized network. In such a situation measuring over too short a period  
25 the change in capacity in response to volume declines can cause one to significantly understate the  
26 volume variability of capacity.

27 The model of capacity variability that has been developed by the Postal Service adopts an especially  
28 short-term view of how capacity responds to changes in volume. A considerable portion of the

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<sup>5</sup> Original Report, p. 33.

<sup>6</sup> Original Report, p. 36.

<sup>7</sup> In its response to Question 6 of Chairman's Information Request No. 4 the Postal Service stated that it typically arranges for provision of additional trips in such a situation.

1 variation in volume that informs and supports the Postal Service’s conclusions about capacity  
2 variability consists of routine variation in mail volume across the days of the week. Although the  
3 Postal Service has stated that it attempts to adjust “to the extent possible” the amount of capacity it  
4 provides in response to these day to day variations in mail volume,<sup>8</sup> there are significant institutional  
5 and economic constraints limiting its ability to do so, as we discussed in our Original Report.<sup>9</sup> For  
6 this reason, the manner in which capacity changes in response to day of the week related variations  
7 in mail volume provides very little insight into how capacity might adjust in response to a sustained  
8 system-wide change in mail volume. Because of the extent to which the analysis that the Postal  
9 Service has put forward in this docket relies upon these very short term fluctuations in mail volume,  
10 we believe that it substantially understates the long term response of capacity to changes in mail  
11 volume.

12 The Postal Service has stated that the contracts that it enters into with providers of highway  
13 transportation typically have a term of four years.<sup>10</sup> Although it is possible, to some extent, for the  
14 Postal Service to adjust the nature and quantity of the services it obtains under these contracts, they  
15 undoubtedly limit that organization’s ability to reconfigure its network in response to changes in mail  
16 volume.<sup>11</sup> The length of the contracts under which the Postal Service purchases highway  
17 transportation provides some indication of how long it might take for the Postal Service to adjust  
18 fully to a sudden change in mail volume. While some changes could certainly be made within the  
19 existing set of contracts, a full adjustment involving network and contract modifications could take as  
20 long as four years.

21 We urge the Commission to take into account the full range of possible effects that changes in mail  
22 volume could bring about on highway network structure, organization, capacity, and cost. In  
23 evaluating the current Postal Service analysis and other modified versions that it may present in the  
24 future, we urge the Commission to consider the extent to which the Postal Service’s work accounts

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<sup>8</sup> Postal Service response to question 3a of Chairman’s Information Request No. 3, October 15, 2016.

<sup>9</sup> Original Report, page 33.

<sup>10</sup> Postal Service response to question 2b of Chairman’s Information Request No. 3, October 15, 2016.

<sup>11</sup> For example, the Postal Service has stated that while it may add trips to a route if the volume of mail to be transported increases, it rarely changes the size of capacity of the vehicles on the route. See Postal Service response to question 3a of Chairman’s Information Request No. 3, October 15, 2016.

1 for the full range of responses to mail volume changes and provides reliable estimates of the long-run  
2 variability of capacity and cost with volume.

### 3 **III. The Apparent Presence of Excess Capacity Is In Fact Fully** 4 **Consistent with a High Degree of Variability in Purchased** 5 **Transportation Costs**

6 In his Comments, the Public Representative presents calculations of excess vehicle capacity by year  
7 and contract type, noting that excess capacity is relatively stable at about 60 percent. He questions  
8 why excess capacity is as high as it is, and also notes that given the relative stability of excess capacity  
9 over time, we might expect capacity-to-volume variability to be close to 100 percent.<sup>12</sup> While the  
10 presence of a significant proportion of excess capacity that is relatively stable over time may not be  
11 sufficient evidence to conclude that variability is 100 percent, we agree with the Public  
12 Representative that it is fully consistent with a variability of 100 percent. There is certainly no basis  
13 for concluding simply because capacity utilization is less than 100 percent that the variability of  
14 purchased transportation capacity is also less than 100 percent.

15 It is helpful in interpreting these capacity utilization statistics to understand how they are generated  
16 from the TRACS data. The TRACS data are essentially stop or route segment based. The capacity  
17 utilization measured at a particular stop applies to that stop only, and cannot be extrapolated to the  
18 route as a whole. At other stops on the same route, capacity utilization could have been higher or  
19 lower.

20 Recall that the purchased highway transportation network features routes with several different  
21 patterns of volume declines and increases over the course of a route.<sup>13</sup> As the Postal Service has  
22 explained in its Response to Chairman's Information Request 3 ("Response to ChIR 3") in this docket,  
23 these include routes (among others) where mail volume:

- 24 • increases steadily over the course of the route;
- 25 • declines steadily over the course of the route;

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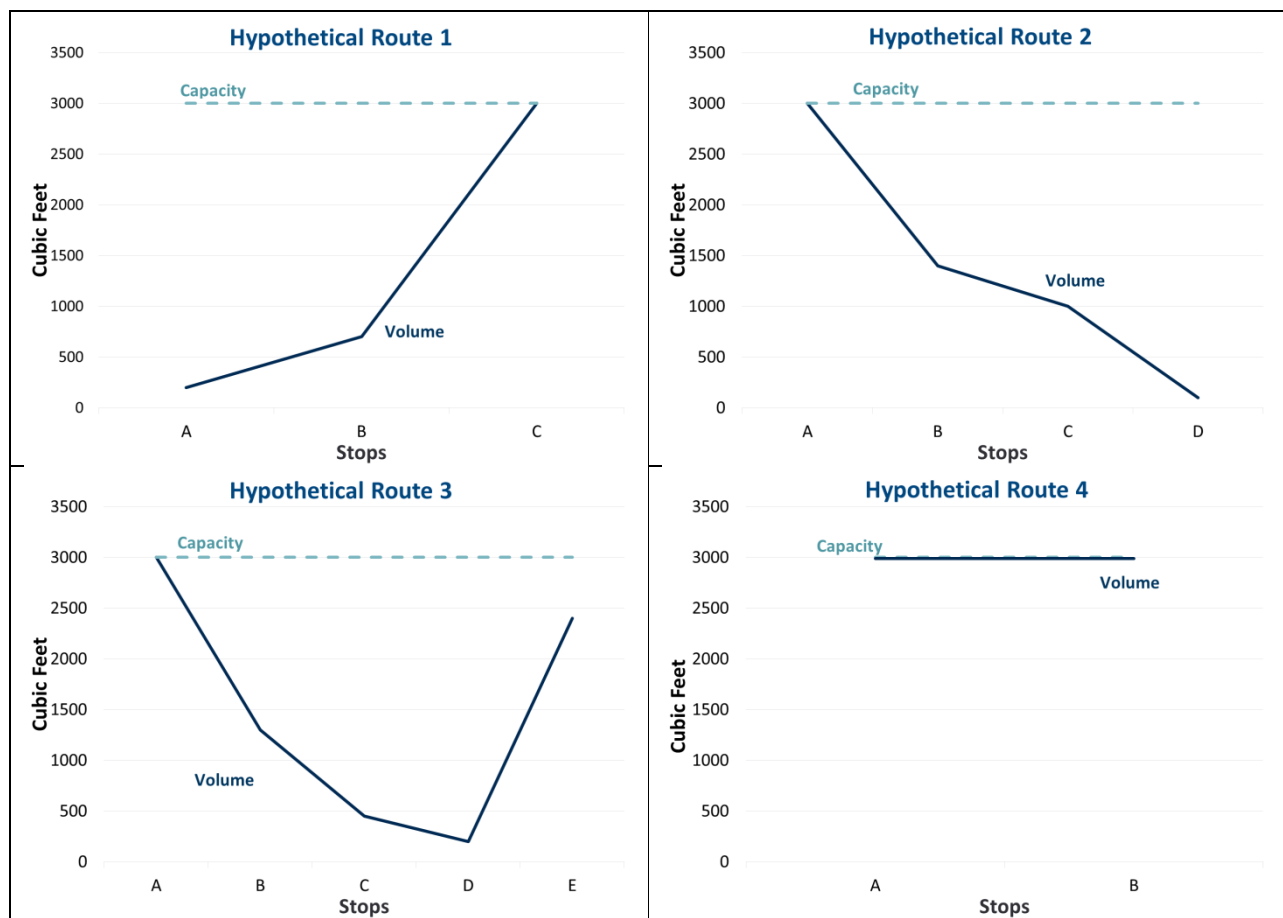
<sup>12</sup> PR Comments at pp. 24-26.

<sup>13</sup> Response of the United States Postal Service to Chairman's Information Request No. 3, Docket No. RM2016-12, October 5, 2016.

- declines on the first part of the route but subsequently increases on the later part of the route;  
and
- is stable over the length of the route.

In all of these cases, principles of efficient network design would dictate that capacity should be set to accommodate the expected volume on the peak-volume leg (or equivalently stop). Figure 1 presents some hypothetical routes fitting the patterns described in Response to ChIR 3, but with just as much capacity as needed. For example, the volume of mail carried on the truck as it pulls into its first destination (Stop A) on hypothetical Route 1 is low relative to the capacity of the truck, but because the truck picks up additional mail at Stops A and B, its volume is significantly higher when it pulls into Stop C, and the capacity of the truck has been set accordingly. Route 2 has steadily decreasing mail volume, while on Route 3 mail volumes decrease initially but then pick up a lot of mail at Stop D. Finally, Route 4 shows very little variation in mail volumes over its two stops and thus has very little excess capacity.

**Figure 1: Volume and Capacity on Hypothetical Purchased Highway Transportation Routes**



1 As is clear from the charts, most stops on most of the hypothetical routes have excess capacity when  
2 volume and capacity are measured at the stop level. If these four hypothetical routes represented the  
3 entire network, the apparent excess capacity would be roughly 50 percent, and an unbiased sample of  
4 these 14 stops would also, in expectation, yield excess capacity estimates (as the Public Representative  
5 has used the term) of roughly 50 percent, despite the fact that there is no excess capacity at the *route*  
6 *level*, and capacity is more or less perfectly sized to fit volume on the peak leg. This hypothetical  
7 example is instructive as to why apparent excess vehicle capacity is consistent with an efficiently-run  
8 network. It is virtually impossible for a multi-stop route to operate at 100 percent capacity  
9 utilization. Accordingly, it is not the case that simply because there is excess capacity somewhere in  
10 the network that capacity is available to accommodate growth in mail volume.

11 The simulated network we presented in our Original Report in this Docket provides support for a  
12 similar yet stronger statement.<sup>14</sup> Recall that the simulated network there was constructed such that  
13 capacity could be adjusted to meet peak volume on each route on a quarterly basis. Subsequent  
14 population-level regressions based on these data confirm the proportionality of capacity to volume.  
15 Yet, as can be seen by comparing the aggregate capacity measures to the aggregate volume measures  
16 as graphed in Figure 6 from our Original Report, the network appears to have significant excess  
17 capacity. Comparison of the X-axis (mail volume) to the Y-axis (capacity) on that Figure reveals that  
18 excess capacity – measured at the stop level – is approximately 40 percent on the “Inter-Zone”  
19 routes.<sup>15</sup> Thus, results from our simulated network indicate that significant levels of apparent excess  
20 capacity are consistent with 100 percent variability, or capacity that moves in proportion to volume.<sup>16</sup>

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<sup>14</sup> Original Report, pp. 40-47.

<sup>15</sup> Simple calculations using files included in UPS-RM2016-12/1 reveal that the excess capacity on Inter-Zone routes is roughly 38 percent on average. The same files show that excess capacity on the Intra-Zone routes is roughly 58 percent on average.

<sup>16</sup> The Public Representative also posits that the Universal Service Obligation may drive much of the “dead-heading” observed in the TRACS data and thus explain much of the excess capacity (see PR Comments, p. 11). It is worth noting that there are no zero-volume stops in the simulated data discussed in this paragraph. In other words, high levels of excess capacity are prevalent even in networks with 100 percent variability and no dead-heading.



## **IV. The Postal Service's Approach to Measuring Capacity Variability is Fundamentally Flawed**

The Public Representative's Comments also propose a variety of modifications to the regression specification and the data used by the Postal Service in deriving the variability estimates presented in Proposal Four.<sup>17</sup> Although in the end he rejects this proposal,<sup>18</sup> he does state (subject to some qualifications) that with these modifications, "the model successfully accomplishes an econometric regression of capacity against volume to estimate contract-type variabilities."<sup>19</sup> On this point we respectfully disagree. We discuss some of the Public Representative's proposed methodological changes here. However, we ultimately conclude that as a methodology for estimating the long-term variability of capacity with respect to mail volume the Postal Service's approach is fundamentally flawed, and cannot be fixed by the minor changes that the Public Representative has proposed.

### **A. THE PUBLIC REPRESENTATIVE'S CHANGES TO THE REGRESSION SPECIFICATION ARE ONLY PARTIALLY WARRANTED AND DO NOT ADDRESS THE MAJOR SHORTCOMINGS OF PROPOSAL FOUR**

Two of the modifications that the Public Representative proposes have to do with correcting or adding to the specification of dummy variables meant to capture heterogeneity across days of the week, quarters, and years.<sup>20</sup> Ultimately these changes do not address the fundamental flaws of the approach used in Proposal Four.

First, the Public Representative argues that the Postal Service's specification of the day-of-week (DOW) variable is "uncommon and problematic," in that it assumes, for example, that the day-of-week pattern is regular throughout the course of the week.<sup>21</sup> In other words, it assumes that the additive effect on the independent variable (holding other variables constant) of shifting from a Monday observation to a Tuesday observation is the same as that of shifting from a Friday to a Saturday. We agree with the Public Representative's opinion that the Postal Service's approach is

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<sup>17</sup> PR Comments, pp. 9-16.

<sup>18</sup> PR Comments, pp. 26-27.

<sup>19</sup> PR Comments, p. 4

<sup>20</sup> PR Comments, pp. 12-14.

<sup>21</sup> PR Comments, pp. 12-13.

1 “uncommon and problematic.” This assumption does not appear to be consistent with any observable  
2 pattern in mail volumes or capacities. In principle, the Public Representative’s proposed modification  
3 of using a set of six DOW indicator variables is less restrictive, and we generally agree that the Postal  
4 Service’s concerns of increased risk of singularity from the addition of these dummies are overblown.  
5 We can understand conceptually why the inclusion of such dummy variables might be appropriate.  
6 As we discussed at length in our Original Report, it is difficult to adjust capacity in response to  
7 routine day-to-day variations in mail volume.<sup>22</sup> Thus, the capacity you might expect to see, given a  
8 certain volume of mail, might differ depending on whether you are measuring capacity on a typically  
9 low volume day of the week, or on a typically high volume day of the week.

10 Next, the Public Representative argues for the inclusion of additional quarterly indicator (or  
11 “dummy”) variables. He notes, as justification for the inclusion of quarterly dummies, that there are  
12 regular seasonal patterns in mail volume. While this is probably true, it is not clear that the rationale  
13 discussed above for including day of the week dummies necessarily applies here. A quarter is a lot  
14 longer than a day, and provides the Postal Service with more ways of adjusting its network to  
15 accommodate fluctuations in mail volume. For example, as we discussed in our Original Report, the  
16 Postal Service institutes short term Christmas Routes to help accommodate the surge in mail volume  
17 that typically occurs in the first quarter.

18 The justification for the inclusion of fiscal year dummies is less clear still, though the Public  
19 Representative notes that the Commission’s analysis in Docket N2010-1 included them. We  
20 respectfully disagree with the Public Representative’s position regarding the need to include fiscal  
21 year dummy variables. The inclusion of these variables – certainly fiscal year variables, and probably  
22 also to some extent quarterly variables – would likely be counter-productive to the goal of estimating  
23 long-term variabilities. Aggregate mail volumes tend to grow or shrink relatively slowly. The  
24 inclusion of fiscal year dummies would likely confound a properly-specified regression’s ability to  
25 measure accurately the degree to which changes in aggregate capacity are in fact caused by changes  
26 in aggregate volume. In other words, fiscal year and quarterly dummy variables are likely to be  
27 correlated with volume trends and could very well “pick up” part of the volume effects that  
28 variability regressions are intended to measure.

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<sup>22</sup> Original Report, pp. 28-31.

## **B. THE REINSTATEMENT OF ZERO-VOLUME OBSERVATIONS EXACERBATES THE PROBLEMS CAUSED BY THE USE OF NOISY TRACS DATA**

The other change proposed by the Public Representative in presenting his adjusted capacity-to-volume variabilities was the reinstatement of zero-volume TRACS tests, which the Postal Service had dropped before constructing the aggregate capacity and volume estimates used in the regressions underlying the Proposal Four variabilities.<sup>23</sup> In our Original Report, we argued that this was an insufficient and ad hoc fix for a major shortcoming in the data underlying the variability estimates in Proposal Four, but that it was at least directionally appropriate.<sup>24</sup>

The Public Representative takes issue with the Postal Service's decision to remove zero-volume TRACS tests, arguing in effect that the fix is one-sided, as TRACS tests with uncharacteristically large volume measures were not removed. He also appeals to the Central Limit Theorem, arguing that due to the large number of observations underlying each aggregate observation, the concerns motivating the removal of zero-volume TRACS tests should be mitigated.<sup>25</sup>

How zero volume observations should be treated depends upon the goal of the analysis. The TRACS data are derived from a sample of individual stops on the Postal Service's network. Focusing on individual stops, it is clear (as we discussed in our Original Report) that the capacity provided at an individual stop is a function not of the volume of mail at that stop, but rather, the volume of mail at the peak load point of the route. It is clear that zero volume observations are very unlikely to correspond to peak load points, and hence there is a rationale for dropping them from the analysis. Alternatively, one could attempt to relate overall system capacity to overall system volume. In this case one might seek to use sample data to develop estimates of the relevant population-level values. However, as we again discussed in our Original Report, doing so reliably requires sample sizes much greater than those offered by TRACS. We discuss these two perspectives and their implications more fully below.

The capacity and volume estimates used by the Postal Service in Proposal Four are based on the TRACS dataset, which samples stop-days. In other words, the TRACS data relate the amount of capacity at a particular stop on a particular day to the volume of mail on the truck at that same stop

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<sup>23</sup> PR Comments, pp. 10-12.

<sup>24</sup> Original Report, pp. 38-40.

<sup>25</sup> PR Comments, p. 12.

1 on that same day. As we have noted, this way of viewing the capacity determination process is  
2 fundamentally incorrect. The amount of capacity provided at a stop is determined not by the mail  
3 that is on the truck at that stop, but rather, by the volume at the peak load point of the route of  
4 which that stop is a part. Professor Bradley's decision to drop the zero volume TRACS observations  
5 from his analysis partially addresses this problem, because by dropping these observations he  
6 increases the proportion of peak load points included in his working sample. However, in our view  
7 this is at best a partial fix. It doesn't result in a good analysis – merely, one that is less bad.

8 By invoking the Central Limit Theorem, the Public Representative appears to be arguing that a  
9 sufficiently large sample will converge toward accurate estimates of key parameters within the  
10 overall population. While this argument is conceptually valid, we do not believe that the sample  
11 sizes that would be needed to produce acceptably precise population estimates will prove  
12 economically or operationally feasible. As the simulation exercise in our Original Report showed,  
13 true population-level measures of aggregate capacity and aggregate volume are capable of generating  
14 unbiased variability estimates. However, those estimates are significantly biased downwards at  
15 sample sizes far higher than the TRACS sample size.<sup>26</sup>

16 Due to heterogeneity in the type of stops that are sampled in the TRACS data and the relatively small  
17 size of the sample used to construct the aggregate estimates, the share of zero-volume and other low-  
18 volume tests in the aggregate estimates is highly variable, ranging from as low as 0 percent to as high  
19 as 78 percent.<sup>27</sup> This random variation in the relative importance of zero-volume TRACS tests is of  
20 course only the most extreme example of noise, as there is similar random variation in low-volume  
21 TRACS tests that are also unlikely to represent the peak leg of a route. In both cases, this variation is  
22 almost certainly due primarily to sampling variation rather than actual changes in aggregate volume  
23 and the resulting estimates of volume are far too noisy to be reliable.

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<sup>26</sup> Notably, even at a 10 percent sampling rate, our simulation exercise found significant bias. The TRACS sampling rate is at most 0.5 percent.

<sup>27</sup> Original Report, p. 38. We have cited the extremes, but simple statistical analysis shows that this zero-volume share will be quite noisy given the sample size. Suppose the probability (p) that a randomly selected test has zero volume is 0.18 or 18 percent, and that there are 84 TRACS tests per aggregate observation (which are both rough averages from the TRACS data). The 95 percent confidence interval for the relative prevalence of zero-volume tests is thus  $0.18 \pm 1.96 * \sqrt{\frac{0.18*(1-0.18)}{84}}$ , or roughly 0.10 to 0.26. The 95 percent confidence interval observed in the TRACS data is similar, but even wider.

1 The inability of the TRACS sampling procedure to reflect accurately the relative importance of  
2 relatively full and relatively empty stops undermines the entire regression framework upon which  
3 Proposal Four is based. As we demonstrate in Figures 7 and 8 from our Original Report, this is a  
4 serious problem as the use of sample-based population estimates biases estimated variabilities  
5 downward, even at sampling rates far in excess of those employed in TRACS. Because there are other  
6 low-volume tests that also appear in varying proportions, the removal of zero-volume tests is a  
7 bandage that only addresses the most extreme symptom of this sampling issue. But it has not  
8 adequately addressed the underlying problem, and unfortunately is not a cure.

## 9 **V. We Join with the Public Representative in Recommending that the** 10 **Commission Investigate the Feasibility of Developing a Database** 11 **Able to Provide a Consistent, Integrated and Econometrically** 12 **Sound Estimate of Purchased Transportation Cost Variability**

13 The Public Representative has provided a thorough and thoughtful discussion of the many conceptual  
14 and empirical inconsistencies between the accepted methodology for determining the variability of  
15 transportation costs with respect to capacity, and the proposed methodology for measuring the  
16 variability of transportation capacity with respect to mail volume. He has discussed the problems  
17 that these inconsistencies can cause, and the potential for bias that they can introduce into the overall  
18 variability determination process.<sup>28</sup>

19 The Public Representative recommends that the Commission investigate the feasibility of developing  
20 a database able to provide a consistent, integrated and econometrically sound estimate of purchased  
21 transportation cost variability. We support this recommendation, and believe that it could  
22 substantially improve the quality, accuracy, and completeness of the Postal Service data required by  
23 the Commission for measuring the variability of purchased transportation costs, and attributing those  
24 costs to products.

25 The information that has been presented in this docket has identified a number of problems with  
26 current analyses of purchased transportation costs, and with the data sources upon which they rely.  
27 In so doing, this docket has also identified a number of requirements that a new dataset should meet  
28 if it is to be able to provide a consistent, integrated, and econometrically sound estimate of purchased  
29 transportation cost variability.

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<sup>28</sup> PR Comments, pp. 17-22.

1 First, as the Public Representative has pointed out, any effort to develop a more comprehensive and  
2 reliable approach to measuring purchased transportation cost variability must be informed by more  
3 information and a deeper understanding of contracting protocols.<sup>29</sup> The contracting process is the  
4 place where “the rubber meets the road” when it comes to making decisions about purchased  
5 transportation service, capacity and cost. As we have discussed, it is likely that existing contracts  
6 limit at least to some extent the ability of the Postal Service to respond to changes in mail  
7 volume. In order to evaluate the accuracy and reliability of analyses that the Postal Service conducts  
8 in this area, the Commission and other interested parties require a better understanding of how this  
9 process works, what it allows the Postal Service to do, and what limitations it places upon the Postal  
10 Service.

11 Second, in a more comprehensive analysis it will be important to consider the amount of  
12 transportation that is actually provided, and the amount of cost that is actually incurred in providing  
13 it. In this Docket the Postal Service has explained that it is able to modify to some degree the amount  
14 of transportation that is provided under existing contracts, and that it will make such modifications in  
15 response to changes in volume.<sup>30</sup> On their face, such changes appear to be an integral part of how  
16 transportation cost and capacity change in response to variations in volume. The only way to account  
17 for such effects is by capturing accurately the amounts of transportation actually provided, and the  
18 costs actually incurred under a contract, rather than the amounts that were anticipated at the time  
19 the contract was signed.

20 Third, any such data should cover all of the transportation provided and costs incurred over a time  
21 period, rather than just the amounts provided on a sample of individual stops, trips, or days. In our  
22 Original Report in this Docket we documented the extent to which mail volume and capacity  
23 utilization varies over time and over routes, and the bias that this variability can cause when noisy  
24 observations from a thin sample are used to develop aggregate estimates.

25 Finally, the information that has been provided in this Docket illustrates clearly that the appropriate  
26 unit of observation for comprehensive analysis of purchased transportation variability should be at  
27 least the route, rather than the contract. We have learned in this Docket that the Postal Service  
28 routinely enters into short term contracts of various types when it requires additional highway

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<sup>29</sup> PR Comments, pp. 23-26.

<sup>30</sup> Postal Service response to questions 2 and 3 of Chairman’s Information Request No. 3, October 15, 2016.

1 transportation.<sup>31</sup> It is not clear if there is only one regular contract per route, or to what extent the  
2 Postal Service might add, drop or combine regular contracts as part of the process of adjusting to  
3 changing patterns of mail volume. The only way to get an accurate view of the overall process will  
4 be to capture and add up all of the contracts and services associated with a particular route.

5 It may in fact turn out that the appropriate unit of observation is even higher than a “route,” at least  
6 as that term is defined by the Postal Service. One could envision a situation in which one “route”  
7 picks up mail at facilities A and B on Monday through Thursday, a second route picks up mail at  
8 facilities C and D on the same days, and a third route picks up mail at all four facilities on Fridays  
9 through Sundays. If volumes were heavier than usual on a given Thursday and routes one and two  
10 were run at or near capacity, lower priority mail might be held for pickup by route three on the  
11 following Friday. In such a situation, the volume and capacity decisions involving the three routes  
12 would be intertwined, and it would be appropriate to consider them together. This example  
13 illustrates the important role that better information about how routes are actually organized, and  
14 how capacity decisions are actually made could play in defining the data and model structures needed  
15 to provide a consistent, integrated, and econometrically sound estimate of purchased transportation  
16 cost variability.

## 17 VI. Conclusions

18 In closing, it is clear that Proposal Four does not remedy a significant inaccuracy, or significantly  
19 improve the quality, accuracy, or completeness of Postal Service data or the attribution of costs to  
20 products. As we argued in our Original Report, the current assumption of 100 percent variability  
21 from volume to capacity is reasonable and defensible. Unless and until the variability can be shown  
22 to be lower or higher with a consistent, integrated, and econometrically sound estimate, the  
23 Commission should continue to direct the Postal Service to employ the 100 percent assumption in its  
24 cost attribution for purchased highway transportation.

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<sup>31</sup> These include Emergency Contracts and Exceptional Contracts. See Response to Question 4 in ChIR  
3. The existence of additional “Christmas” highway accounts, issued under emergency contract rules,  
is also apparent from various costing spreadsheets, such as the “WS14.3” tab in the “CS14-P-  
FY.15.Proposed.Variabilities.xlsx” file in USPS-RM2016-12/1.